Harnessing the Power of Hybrid Electric Fleet Vehicles

Naomi Friedman
Center for a New American Dream
www.newdream.org
U.S. DOE Clean Cities

Center for a New American Dream

- **Nonprofit Organization whose mission is**: To help people consume responsibly to protect the environment, enhance quality of life and promote social justice.

- **Not about: guilt, or gloom and doom**. Are about: positively educating the public, wise consumer choices based on sound science. Buy wisely, join with others to make a difference.

Center for a New American Dream

- **Active membership.** On-line network of nearly 60,000 individuals engaged in specific actions in their own lives, the community, and on the national level to change the way goods are produced and consumed.
- **Helped thousands of purchasers move purchasing to environmentally friendly goods and services**
- **Conducted 10 successful media campaigns that generated 6,000 news stories** including *Time*, CBS News, *The Wall Street Journal*, CNN, *Family Circle*, *People Magazine*, *Woman's Day*, and the *Washington Post*.
- **1.6 million visitors to our website in 2004**

Institutional Procurement Program

Helping state and local governments and other large purchasers incorporate environmental considerations into their purchasing decisions.

Achievements:

- Helped thousands of purchasers in government and institutions, such as the World Bank, move purchasing power to environmental preferable goods and services
- Assisted jurisdictions (MA, MN, Santa Monica, Ind., Portland) in developing contracts for environmentally preferable products (e.g. computers, cleaners, hybrid vehicles, paper)
- Network of over 1,200 procurement officials
- Website/on-line assistance/listserve/best practices/fact sheets/training
- Landmark conference calls

Harnessing the Power of Advanced Fleet Vehicles

Why Hybrids?

One-third of anthropogenic CO_2 emissions come from transportation. Passenger vehicles account for 40% of the oil we consume.

Hybrids offer fuel efficiency, convenience (no new infrastructure is needed), greenhouse gas reduction, some criteria air emissions reduction, will be the car platform of the future, and are enjoyable to drive!

- Dramatic reduction in global warming CO2 emissions (about 30-50% reduction).
- Improves urban air quality as the electric motor allows for no emissions when operating at stop and start and at low speeds.
- Higher fuel economy reducing our nation's dependence on imported oil.

Communities Purchasing Hybrids*

States

- New York
- New Jersey
- Washington
- California
- Oregon
- Florida
- Nevada
- Colorado
- Missouri
- Maine
- Massachusetts
- Michigan

Cities

- Coral Springs,FL
- Boulder, CO
- Fort Collins, CO
- Denver, CO
- Houston, TX
- Mesquite, TX
- Coppell, TX
- New York, NY
- Los Angeles, CA
- San Francisco, CA
- Austin, TX
- San Antonio, TX
- Lake Oswego, OR
- New Britain, CT
- Seattle, WA
- Boise, ID
- Dallas, TX

Counties

- King Co, WA
- Alachua Co, FL
- Marion County, FL
- Windham County, CT
- Martin County, FL Police Dept
- Johnson Co, KS
- Jefferson Co., KY
- Lexington/Fayette Urban Co., KY
- Palm Beach Co, FL
- Arlington Co, VA

* **For a more complete listing, see www.newdream.org/hev**

Government Hybrid Uses

- Sheriff's Offices
  - Parking enforcement
  - Detective work
  - Light patrol/non-emergency uses
- Social services
- District attorneys offices
  - Process servers
- Parks and Recreation
- Depts. of Environmental Protection
- Depts. of Health
- ETC…..

Current Obstacles to Expanding the Use of Hybrids

- Limited supply
- Higher initial cost
- Limited model types
- Lack of information about performance, etc.

Center Activities

- Attempt to establish national cooperative purchasing
- Assist select states and localities put together contracts for purchasing hybrids (e.g. King County/Pacific Northwest; Massachusetts; Pennsylvania, etc.)
- Hold meetings with automotive industry to encourage increased production of hybrids and support of fleet contracts
- Collect and disseminate information on hybrid performance, costs, etc (clearinghouse)
- Publish HEV fact sheet
- Hold national and regional peer exchange phone calls with fleet managers and others

Survey Demonstrates High Interest in Hybrids

- Nation's 500 large agencies, 25% response rate
- Over the next 3 years, such agencies intend to buy a total of:
  - 29,500 sedans
  - 15,000 pick-ups
  - 4,400 SUV's
  - 5,600 Vans
  - = 54,700
- They intend to buy a total of vehicles in hybrid format, if available:
  - 11,000 sedans
  - 6,800 pick ups
  - 2,100 SUV's
  - 3,150 vans
  - =23,200 total HEV vehicles
- More likely to buy HEV's if get credit for meeting air pollution standards or CO2 reduction goals
- 70% have no "Buy American" policy
- 90% said they would purchase vehicles off of a national contract

King County, WA

- Population: 1.8 million
- Land Area: 2,2134 square miles
- Fleet Size: 3,400 vehicles/equipment
- 10-year history of providing fleet and related services to more than 100 cities and public agencies
- Recipient of Blue Seal of Excellence aware from the National Institute for Automotive Service Excellence
- Certified to perform warranty repair
- Longstanding commitment to AFV

King County, WA

- Between 2001 and 2003 King County Purchased 60 Toyota Prius Hybrid Electric Vehicles
- King County drivers gave hybrids high rating (4.5 out of 5 point scale)
- Some said, vehicle has limited trunk space, did not have enough “oomph” to pass other vehicles, infrequent use of vehicle can result in dead battery

Costs: 2003 Economic Life Cycle Cost Comparison: King County

King County, Washington

	2003 Chevy Malibu	Adj. For Life Cycle[1]	2003 Toyota Prius	Difference
Initial Purchase Price	$14,901	$17,434	$21,280	($3,846)
Projected Residual Value[2]	($2,117)	($2,477)	($4,111)	$1,634
Net Purchase Price	$12,784	$14,957	$17,169	($2,212)
Fuel Miles Per Gallon	24	24	44	20
Est. Fuel Cost[2,3]	$5,003	$5,854	$3,211	$2,643
Est. Maintenance & Repair Cost[2]	$4,013	$4,695	$2,466	$2,229
Total Cost of Ownership	$21,800	$25,506	$22,846	$2,660

Cost Calculator Tool

- Develop in partnership with NREL and ACEEE
- Web-based tool to calculate comparative costs and benefits of hybrids versus conventional vehicles
- Will be able to analyze costs of single vehicle and percent of fleet replacement
- Will include CO2 reduction benefits and hopefully information on criteria pollutant reductions, where available
- Established peer-review team of users to ensure usability of tool
- Available Spring 2005 on websites of Clean Cities, Center, and ACEEE

Please send us any information you have on hybrids costs, maintenance, resale, etc.!!!

Government Protecting the Public

The Center for a New American Dream

www.newdream.org/hev

301-891-3683

Naomi@newdream.org

Please stay in touch!